

The Automobile Speaks

It tells you what it is, what it requires and it asks to be treated fairly.

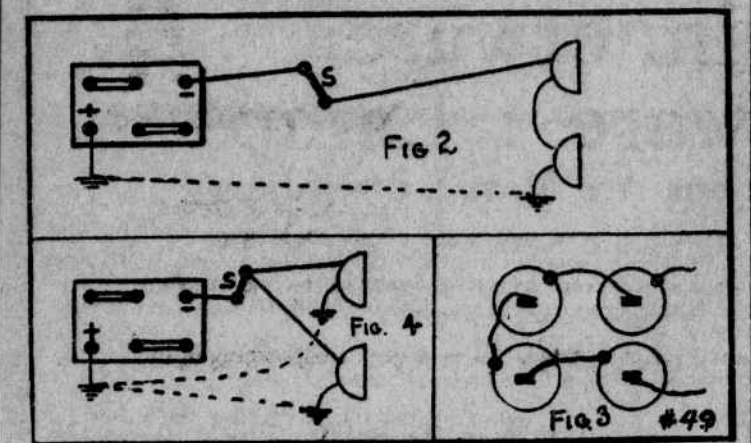
By Frederick C. Guerlich.

NUMBER 49—ELECTRICAL TERMS AND UNITS.

There are two ways in which the lamps, cells of a battery and units in an electrical system can be connected; namely, in series and in parallel. When the units, lamps, etc., are so connected that the current must pass through them one after the other, they are said to be in series. Fig. 2 shows how lamps are connected in series, while Fig. 3 shows a set of dry cells so connected. A failure of one unit in a system connected in series will cause a failure of the whole. If one of the lights of Fig. 2 were to burn out the other light would also go out.

When each light or other unit has its separate circuit, so that the current does not pass through one after the other, as in the series, they are said to be connected in parallel. Fig. 4 shows lamps so connected. In this case, if one light were to go out, it would not affect the other.

When an electric current passes through a wire, lamp filament or other device, it will cause the wire, etc., to become hot. As the greater the amount of current the hotter the wire becomes, it often happens that parts become so hot as to "burn out." To prevent this, a fuse, which will burn out at an amperage lower than the device it is supposed to protect, is placed in series with the device. By burning out it breaks or opens the circuit before harm can be done. It is a safety device, or sort of safety-valve.



By the expression "open circuit" is meant that somewhere in the electrical circuit there is a disconnection, so that the current cannot flow. This might be at the switch, the outlet, or at a broken or disconnected wire. As the current cannot flow when there is an open circuit, the system, or that branch of it in which there is the open circuit, will be inoperative.

By closed circuit is meant just the opposite, there being no disconnection in the circuit, so that the current can flow, there being a complete path for it.

Switch, Cutout, Regulator.

A switch is a device put in the circuit, and which can be operated by hand, by which the circuit is opened or closed, or by which the current is switched from one circuit to another, as for example, switching from the head lights to the dim lights.

A cutout might be termed an automatic switch whereby the circuit is opened to avoid harm or waste of current. Thus it might open the circuit to prevent the battery from being discharged under certain conditions, or it might open it when the voltage or amperage becomes so high as to burn out certain units.

A regulator is a device for automatically regulating the voltage or amperage. Thus the amperage for charging the battery should be about 8 or 10, and the regulator will maintain this. Both the regulator and cutout are magnetically operated.

Positive and Negative.

The expression positive or negative is much used in talking of electrical circuits and is important. The current is said to flow from one terminal of the battery, or from one brush of a generator and to flow to the other terminal or brush. The terminal from which the current flows is called the positive terminal and that to which it flows the negative. When a battery is connected great care must be taken to have the positive or negative terminal correctly connected and not reversed. Thus in most cars, the positive terminal of the battery is connected to the metal of the car or is "grounded." Should the negative be grounded when the positive should be, the battery will be quickly discharged. The "plus" sign is used to mark the positive terminal and the "minus" sign to mark the negative terminal.

When talking of electrical circuits, the expressions "high tension" and "high voltage" mean the same thing. I told you that voltage meant electrical pressure. Tension is just the opposite of pressure, so it would seem that the above statement is contradictory. But you can regard the current as being forced or pressed out from one terminal and drawn or pulled in from the circuit at the other terminal. The former case would mean pressure, and the latter tension. As you can look at it from either way, when I say high voltage and high tension mean the same thing in this case it is correct.

ALONG THE ROW.

"For more than a year we have expected great things from the new Chalmers organization, but we were totally unprepared for anything of such astonishing value as the new series Chalmers Six," says Harry J. De Bear, president and general manager of the Maxwell-Chalmers Corporation, Broadway at Fifty-ninth street, New York City.

"From the new fenders, top and radiator down to such small details as floor lights, which work automatically with the opening of the doors, the cars give every evidence of the most careful and modern practices in building—in fact, they show many touches of custom building."

Oakland changes that are noteworthy in the line of cars shown for the first time at this year's show are twofold in character. They include striking changes in the exterior appearance, which is more individual, more dashingly than ever before, and most important changes in motor development, which will be much appreciated, though they are less apparent to the eye than the changes in the body lines. The crankcase in the 1922 Oakland is entirely new, heavier and thicker than before. The cylinder head design is changed, too, and an important feature of the new type is its easy removal when necessary, giving unusual accessibility to the working parts of the motor. Loosening twelve bolts and disconnecting the carburetor permits the cylinder head to be lifted up, with intake and exhaust manifold attached.

NEW DIMMER SWITCH.

While night driving no one need grope for the headlight dimmer switch in the new Pierce Arrow cars. The Pierce Arrow dimmer switch is located above the clutch pedal.

WILLIS-OVERLAND REPORTS BIG SALES

Conditions at the Factory and Distributing Points Were Never Better.

The record smashing price reduction announced on Overland and Willis-Knight cars has resulted in a buying wave all over the country, according to announcements of Willis-Overland officials this week.

Retail sales varying from one to fifty cars were reported in various cities and small towns within twenty-four hours after the new prices were announced. Demand for both cars is of such proportions that stocks on hand throughout the country are largely depleted. Price cuts range from \$45 on the Overland touring to \$150 on the Willis-Knight touring and \$320 on the Willis-Knight coupe.

The new prices, it is said, were made possible by the savings through reduction of several millions in inventories and outstanding commitments.

A list of the features of the Overland car shows Timken and new departure bearings, Mallory vanadium steel springs, Auto-Lite starter, Stewart-Warner speedometer, Buick all steel body with baked enamel finish, three speed transmission, demountable rims, etc.

The Willis-Knight car is equipped with the Knight type sleeve valve motor, an outstanding feature of which is its proved ability to give tremendous mileage without motor adjustment.

FRANKLIN IN 1921 SOLD 8,545 MOTORS

SYRACUSE, N. Y., April 1.—According to a statement given by officials of the Franklin Automobile Company the company did a good volume of business in 1921, despite the countrywide industrial depression.

Franklin shipments amounted to 8,545 cars, or 81 per cent. of the number of shipments made in 1920, which was not only the peak year for Franklin, but the year in which the demand for automobiles generally reached heights hitherto unprecedented. During the year fifty new dealers were appointed in territories in which the Franklin car had previously not been sold.

Turning to the financial side, the company sold during the year stock in excess of \$2,500,000, the number of stockholders increasing from 2,345 on the first of the year to over 4,500 at the close. During the twenty-six months in which Franklin stock was offered to the public more than \$6,300,000 face value was sold.

During 1921 the Franklin factory has

taken on several new units of manufacturing, including differential, cam shafts and hoods. The outstanding improvement of the year is the case hardened crankshaft, which multiplies the life of the ordinary crankshaft three times. Equipment for this process cost the company approximately \$200,000. An elaborate automatic conveyor installation was made during the year also. This makes possible the automatic moving of cars from the first assembling operations to the completed cars. Two new buildings, one a combination manufacturing and storage building and the other a modern heating and power plant, were erected at a cost of \$2,200,000.

STUTZ CO. MAKES PLANS FOR BIG EXPANSION

Having weathered successfully the many uncertainties which have affected the motor car industry in general, the Stutz Motor Car Company of America, Inc., has embarked on a spirited program to meet the general improvement in conditions forecasted by the automobile industry.

Plans are maturing rapidly for greatly increased activity, particularly in the merchandising end of the business. A liberal sales policy has been adopted and the dealer organization is being augmented rapidly in all parts of the country.

The first indication of the proposed extension of the company's operations comes with the announcement of the appointment of H. R. Hyman as advertising counsel for the Stutz Company. Mr. Hyman is identified with the Charles H. Fuller Company of Chicago, one of the pioneer advertising agencies in the automobile field. Mr. Hyman brings to his new connection an experience of many years in the field of advertising and selling.

DODGE A. SAMSON.

When the San Joaquin Light and Power Corporation at Bakersfield, Cal., lost the use of their large steam turbine they were faced with the need of rushing the bulky machine to San Francisco post haste for repairs or leaving the people of Bakersfield minus light and power indefinitely. An expedition vital to the turbine, weighing over 2,000 pounds, was placed in the tonneau of a Dodge Brothers touring car and hurried to San Francisco. In spite of the great weight the car was equal to the task.

RUTHERFORD PROMOTES FOREIGN TRADE.

W. O. Rutherford, vice-president of the B. F. Goodrich Rubber Company, Akron, Ohio, has been appointed head of the foreign trade committee of the Motor and Accessory Manufacturers' Association, New York. This committee will cooperate with the Bureau of Foreign and Domestic Commerce at Washington to promote the sales of American motor products abroad. Mr. Rutherford has been with the Goodrich company for more than twenty years.

STANDARD EIGHT IN BIG REORGANIZATION

Formation of the Standard Motor Car Company has just been announced to take over the manufacture and sale of the Standard Eight. New interests experienced in the automobile industry have joined with the Standard Steel Car Company in the formation of this company.

Don C. McCord, long a prominent figure in the automobile industry, has resigned as vice-president of the Bankers Commercial Securities Company of New York to accept a similar position with the Standard Motor Car Co., and will be in direct control of the sales and finance.

Associated with Mr. McCord are men whose past records in the production and merchandising and financing of several of the most successful automobile companies in this country have made them outstanding personalities in the industry.

This new organization has joined with the Standard Steel Car Company in the formation of the new Standard Motor Car Company to take over the manufacture and sale of the Standard Eight. "We realize," said Mr. McCord, "that the automobile business is highly specialized in every department, and for that reason we have gathered together an organization in which every man has proven himself and his policies over a long period of time with the larger and more prosperous automobile companies in the industry to-day."

FRANK CARRIE WILL TAKE A LONG REST

Frank Carrie, the well known and greatly beloved vice-president of the Marmion Automobile Company of New York, has retired temporarily from business to take a much needed rest. He will be greatly missed by a host of friends.

Frank has sold the Marmion in New York for ten years. His first connection with the local automobile trade dates back to 1904 when he was sales manager of the Haynes Company. Later he handled the Franklin and Marquette cars and also was connected with Wyckoff, Church & Partridge.

GOOD BRAKES FOR RESTFUL RIDING.

"More and more," says R. G. Ewell, assistant sales manager of the Auburn Automobile Company, "motorists are coming to realize that good brakes are as important as a good motor and a good body. With this in mind we provided extra large brakes for the 1922 Auburn, knowing that good brakes add definitely to the motorist's peace of mind and that without real safety there can be no such thing as true restful riding."

Motor Notes

Ed von Kattengell of the von Kattengell Motor Corporation, distributor of the H. C. B. automobile, announces a further reduction in the prices of those cars. This is the second cut in H. C. B. prices since last July and has been made possible by greater manufacturing economies as well as reduction in the cost of materials. Rising at all times been a highly economical car, it has become more so because of the lower prices.

George Frank Lord, who has long been prominent in creative advertising work and associated with a number of nationally prominent concerns, has lately been appointed advertising manager of the Chevrolet Motor Company.

Reports from the Rust factory show daily increasing production, behind which there is a strong and well sustained demand for the product. The popularity of the four Rust dates back to the New York show, where the public were given the first glimpse of the new cars. This sales record established at the New York show has been virtually duplicated at other shows.

Facts and not fancies sustain the statement of the vice-president of the Rust Motor Car Company of New York, George Stone, who says that the automobile industry is in a fair way to assume there will be a gradual increase in business from now on.

"In our New York branch we made an increase of 40 per cent. over the previous six months," said Mr. Stone. "The Rust sales, of course, include our passenger cars and our commercial vehicles or 'aged wagons' as they are called."

A Brooklyn branch for the sale of Hickenbacker cars was established last week by the Hunt Motor Car Company, Inc., of which J. J. Hunt is president. Mr. Hunt has situated quarters at 1524 Bedford avenue. Here the Hickenbacker was on display during the Brooklyn automobile show, and those who found the car there went to the new showroom to see Capt. L. V. Hickenbacker's product. The showroom was crowded all week and many sales were made. The Manhattan salesrooms of the Hickenbacker are in the Fifth Building, Fifty-seventh street and Broadway.

DRIGGS

"Built with the Precision of Ordnance"

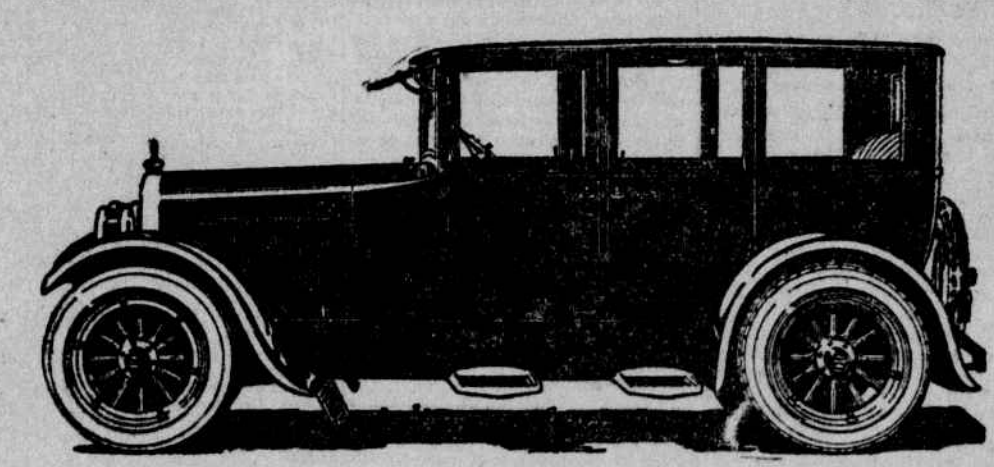
The initial low price of a Driggs automobile is not wholly an indication of true motoring economy. The cost of upkeep and maintenance of a car after it has been acquired is often higher than the original purchase price. Driggs Motor Cars are built on the principle of true economy after the purchase — built to afford you lowest transportation cost.

30 Miles to the Gallon.

DRIGGS ORDNANCE & MFG. CORP.

19 W. 44th St., N. Y. Works, New Haven, Conn.

CLEVELAND SIX



The Lowest Priced Six Cylinder Sedan

IN the intense effort of manufacturers to reduce closed car prices, the Cleveland Automobile Company with its impressive sedan has fairly outstripped competitors.

This virile and superbly luxurious six costs only \$400 more than the Cleveland touring car. This reduction constitutes an amazing achievement.

The average difference, as found by comparing touring car and sedan prices of the 52 leading manufacturers of 5-passenger cars is \$754, almost double the Cleveland margin. Only two small fours have a difference as low as \$400.

No other real sedan with a six-cylinder motor is priced as low as the Cleveland.

It Is a Genuine Sedan—Not a Compromise

The body is Fisher-built and is comparable in size, finish and luxurious appointment to sedans costing \$700 to \$900 more.

It is as substantial and solid in its construction as it looks.

It is as windproof and rainproof as the highest priced sedans built.

It will remain firm and free from leaks and rattles during many years of luxurious and satisfying service.

It embodies all the features which the experience of the entire industry shows are essential in a fine closed car.

It is not an experiment in which the buyer takes all the risk.

Mounted upon the highly developed Cleveland Six chassis with its powerful, economical and silent over-head-valve motor it is

NOW

\$1595

F. O. B. CLEVELAND

Today's Best Buy in Closed Cars

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SHERIDAN MOTOR CARS

A beautiful car, elegantly finished and the most completely equipped and appointed car on the market. By selection of the General Motors' Company we have been appointed Eastern Distributors of this wonderful car.

Fully guaranteed for one year against defective parts by the Olds Motor Works, a unit of the General Motors Company.

Inspect and be convinced.

Full line includes:
Roadster, \$1,485
Coupe, \$2,160
Touring, \$1,485
Sedan, \$2,360

f. o. b. Muncie, Ind.

We will make a very attractive allowance on your present car in exchange. Time payments arranged.

CUTTING-LARSON CO., Inc.

Also Eastern Distributors for the Oldsmobile.

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NASH

WARREN-NASH MOTOR CORP., Distributors

Showroom: Broadway, Near 65th St., New York City

These Dealers sell NASH products

- | | | | |
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| METROPOLITAN
BROOKLYN
L. A. B. Motor Corp.,
1461 Bedford Ave. | BUDSON
Kline's Garage. | SUFFERN
H. M. Vanderlin | NEW BRUNSWICK
De Angelis Bros. |
| BROOKLYN
Cassanova Service & Rep.,
1035 Leggett Ave. | BUNTINGTON
J. A. Carson Auto Co. | TROY
George F. Smith. | NEW YORK
Sweeney-Boyle & Co. |
| BRONX
Cassanova Service & Rep.,
1035 Leggett Ave. | KINGSTON
Ulster Garage, Ltd. | WHITE PLAINS
Nash Sales Co. | PASSAIC
Motor & Industrial Distributing Corp. |
| MANHATTAN
W. R. Keller & B. E. Williams,
627-648 W. 120th St. | LIBERTY
Walter T. Lamoreaux | YONKERS
Nash Westchester Corp. | PLAINFIELD
Thompson Motors Co. |
| M. & M. Motor Sales
1405 St. Nicholas Ave. | MINEOLA
Lenders Motor & Supply Co. | NEW JERSEY
Raymond Kramer Motor Sales Co. | PETERSBURG
Jefferson Motors, Inc. |
| PERLA
Lafayette Co.,
Broadway at 97th St. | MONTICELLO
Hemstreet Motor Co. | RELMAR
Belmar Auto Co., Inc. | RED BANK
Walter M. Van Dorn |
| STATEN ISLAND
Chapman Garage, Inc.,
1088 Richmond Terrace. | MOUNT VERNON
Nash Motor Sales | BLOOMFIELD
A. B. Tatum. | RIDGEWOOD
Bergen Garage |
| | NEW ROCHELLE
Diamond Motor Car Co. | DOVER
Richards & Hunt. | RUTHERFORD
Nash Sales & Service. |
| | OSHSING
W. D. Randers. | EAST ORANGE
Nash Orange Co. | SOMERVILLE
Garrettson Auto & Cycle Co. |
| | PLAINTANTVILLE, N. Y.
John L. Thorn. | ELIZABETH
Newton & Marshall. | SEAMIT
J. H. Whisler |
| | PERKINSVILLE
Elizabet Motor Co. | KNOLWOOD
Nash-Hudson Motor Co., Inc. | WEST NEW YORK
B. Glendon. |
| | PORT CHESTER
Elizabet City Garage. | FREEHOLD
Belmar Auto Co., Inc. | CONNECTICUT
Bridgeport John C. Mattos, Inc. |
| | POUGHKEEPSIE
The Central Motors Co. | GREENWICH
Greenwell Garage. | DANBURY
Thomas H. Cane. |
| | RIVERHEAD
Cornwell Motor Sales Co. | HACKENSACK
Hackensack Auto Co. | NEW MILFORD
L. N. Dunning. |
| | ROCKAWAY PARK
The Rockaway Nash Co. | JERSEY CITY
Nash Sales Corp. | SHELTON
Shelton Garage |
| | SCHENECTADY
Johnson - Tonus Motor Corp. | MORRISTOWN
Louis C. Leprohon | SOUTH NORWALK
S. L. Benedict |
| | SPRING VALLEY
Paramount Auto Sales Co., Inc. | MYRTLE
John Swenson. | STAMFORD
Sales Co. |
| | | NEWARK
Nash Newark Co. | WATERBURY
Cartwright |

NASH LEADS THE WORLD IN MOTOR CAR VALUE